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(FILE 'HOME' ENTERED AT 11:34:37 ON 07 APR 2003)

FILE 'KOSMET, IPA, BIOSIS, USPATFULL, CAPLUS' ENTERED AT 11:35:41 ON 07  
APR 2003

L1           568 S MUCOADHE##### (5W) POLYMER####  
L2           791001 S THIO? OR SULFHYDRYL? OR THIOLATED OR (SULF HYDRYL?)  
L3           790999 S THIO? OR SULFHYDRYL? OR THIOLATED OR (SULFA HYDRYL?) OR  
SULFA  
L4           58 S L3 AND L1  
L5           51 DUPLICATE REMOVE L4 (7 DUPLICATES REMOVED)

=> log hold

L5 ANSWER 50 OF 51 USPATFULL

ACCESSION NUMBER: 95:99134 USPATFULL

TITLE: Small peptidic compounds useful for the treatment of glaucoma

INVENTOR(S): Stig, Aasmul-Olsen, Skodsborg, Denmark  
Widmer, Fred, Ryde, Australia  
Gauri, Kailash K., Lentföhrden, Germany, Federal Republic of

PATENT ASSIGNEE(S): CarlbioTech, Ltd., Denmark (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5464821		19951107
	WO 9216551		19921001
APPLICATION INFO.:	US 1993-122510		19930924 (8)
	WO 1992-DK95		19920325
			19930924 PCT 371 date
			19931216 PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	DK 1991-532	19910325
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Warden, Jill	
ASSISTANT EXAMINER:	Huff, Sheela J.	
LEGAL REPRESENTATIVE:	Banner & Allegretti, Ltd.	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 4 Drawing Page(s)	
LINE COUNT:	909	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM E is cysteine or a cysteine homologue, the **sulphydryl** group being free or substituted,

DETD . . . of Pharmaceuticals 52, p. 255 (1989), Bundgaard, H. An example of

the use of additives is given in "Evaluation of **mucoadhesive polymers** in ocular drug delivery. 1. Viscous solutions", Pharmaceuticals Res. 8, p. 1039 (1991), Davies, N. M. et al.

L5 ANSWER 45 OF 51 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:758076 CAPLUS

DOCUMENT NUMBER: 132:298491

TITLE: **Thiolated polymers: a new generation of mucoadhesive polymers**

AUTHOR(S): Bernkop-Schnuerch, A.

CORPORATE SOURCE: Cent. of Pharm., Inst. of Pharm. Technol., Univ. of Vienna, Vienna, A-1090, Austria

SOURCE: Farmaceutski Vestnik (Ljubljana) (1999), 50(Pos. Stev.), 268-269

CODEN: FMVTAV; ISSN: 0014-8229

PUBLISHER: Slovensko Farmacevtsko Drustvo

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

TI **Thiolated polymers: a new generation of mucoadhesive polymers**

AB A review with 4 refs. of the mucoadhesion, cohesiveness, and penetration-enhancing capabilities of **thiomers** (**thiolated polymers**) and their action in inhibiting Zn proteinases. These polymers include conjugates of cysteine with polycarbophil, chitosan, and Na CM-cellulose, and are believed to interact with cysteine-rich subdomains of mucus glycoproteins.

ST review **thiolated** polymer bioadhesive

IT Adhesives  
(biol.; **thiolated polymers: new generation of mucoadhesive polymers**)

IT **Thiols** (organic), biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(conjugates with polymers; **thiolated polymers: new generation of mucoadhesive polymers**)

IT Mucus  
(**thiolated polymers: new generation of mucoadhesive polymers**)

IT Polymers, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(**thiolated; thiolated polymers: new generation of mucoadhesive polymers**)

PATFULL  
 ACCESSION NUMBER: 1999:113787 USPATFULL  
 TITLE: Use of fatty acid esters as bioadhesive substances  
 INVENTOR(S): Hansen, Jens, Allerod, Denmark  
 Nielsen, Lise Sylvest, Copenhagen .O slashed., Denmark  
 Norling, Tomas, Lyngby, Denmark  
 PATENT ASSIGNEE(S): GS Development AB, Malmo, Sweden (non-U.S.  
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5955502		19990921
APPLICATION INFO.:	US 1997-829496		19970327 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1997-462222, filed on 5 Jun 1997		

	NUMBER	DATE
PRIORITY INFORMATION:	DK 1994-37	19940330
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	MacMillan, Keith D.	
LEGAL REPRESENTATIVE:	Watov & Kipnes, P.C.	
NUMBER OF CLAIMS:	22	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	7 Drawing Figure(s); 6 Drawing Page(s)	
LINE COUNT:	2331	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM During the last decade increased attention has been given to the possibility of using bioadhesive/**mucoadhesive polymers** for drug delivery purposes. It is believed that several problems associated with conventional controlled release drug delivery systems may be.

DETD mucopolysaccharides such as, e.g., **thiomucasee**,  
 DETD . . . Hounslow, U.K.) is a high molecular weight poly(acrylic acid)copolymer loosely cross-linked with divinyl glycol. On account of its known excellent **mucoadhesive** properties, this **polymer** serves as a reference. Before testing in the above-mentioned tensiometric test, a polycarbophil gel is prepared by mixing polycarbophil with.

L5 ANSWER 40 OF 51 USPATFULL  
 ACCESSION NUMBER: 1999:78708 USPATFULL  
 TITLE: Urethane-containing aminosteroid compounds  
 INVENTOR(S): Yu, Chia-Nien, Norwich, NY, United States

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ACCESSION NUMBER: 2000:672530 CAPLUS

DOCUMENT NUMBER: 134:136581

TITLE: **Mucoadhesive thiolated polymers:** Synthesis and in vitro evaluation of chitosan-**thioglycolic** acid conjugates

AUTHOR(S): Kast, C. E.; Freudl, J.; Bernkop-Schnurch, A.  
CORPORATE SOURCE: Center of Pharmacy, Institute of Pharmaceutical Technology and Biopharmaceutics, University of

Vienna,

Vienna, A-1090, Austria

SOURCE: Proceedings of the International Symposium on Controlled Release of Bioactive Materials (2000), 27th, 1222-1223

CODEN: PCRMEY; ISSN: 1022-0178

PUBLISHER: Controlled Release Society, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

- TI **Mucoadhesive thiolated polymers:** Synthesis and in vitro evaluation of chitosan-**thioglycolic** acid conjugates
- AB The covalent attachment of **thioglycolic** acid to cationic chitosan leads to polymers exhibiting strongly improved mucoadhesive properties. Due to the formation of inter- and/or intrachain disulfide bonds based on an oxidn. process, the cohesive properties of the polymer could be improved as well.
- ST **thioglycolate** chitosan mucoadhesive drug
- IT Drug delivery systems  
(oral, bioadhesive; prepn. and in vitro evaluation of chitosan-**thioglycolic** acid conjugates for mucoadhesive drug delivery systems)
- IT 68-11-1DP, **Thioglycolic** acid, conjugates with chitosan  
9012-76-4DP, Chitosan, conjugates with **thioglycolic** acid  
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use);  
BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. and in vitro evaluation of chitosan-**thioglycolic** acid conjugates for mucoadhesive drug delivery systems)

L5 ANSWER 32 OF 51 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:350505 CAPLUS

DOCUMENT NUMBER: 136:107353

TITLE: In vitro evaluation of matrix tablets based on

**thiolated** polycarbophil

AUTHOR(S): Clausen, Andreas E.; Bernkop-Schnurch, Andreas

CORPORATE SOURCE: Center of Pharmacy, Institute of Pharmaceutical

Vienna,

Vienna, Austria

SOURCE: Pharmazeutische Industrie (2001), 63(3), 312-317

CODEN: PHINAN; ISSN: 0031-711X

PUBLISHER: Editio Cantor Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR  
THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE

#### FORMAT

TI In vitro evaluation of matrix tablets based on **thiolated**

polycarbophil

AB Based on **thiolated** polycarbophil, a mucoadhesive peptide drug  
delivery system with improved stability and release properties has been  
established. Mediated by a carbodiimide, L-cysteine was covalently

linked

to polycarbophil (PCP). The amt. of cysteine moieties on the polymer was  
in the range of 72.6.+-.5.8 .mu.mol/g polymer. Disintegration studies  
with tablets of **thiolated** PCP (PCP-Cys) demonstrated a stability  
for 48.3.+-.1.5 min at 37.degree. in 100 mM Tris-HCl pH 6.8, whereas  
tablets of the corresponding unmodified polymer (PCP) disintegrated

within

a time period of 13.8.+-.1.6 min (mean .+-. SD, n = 3). During these  
disintegration studies the amt. of **thiol** groups decreased in  
tablets consisting exclusively of PCP-Cys by 80.0.+-.4.5%, suggesting

that

the formation of inter- and/or intramol. disulfide bonds is responsible  
for this strongly improved stability of tablets based on the  
**thiolated** polymer. Further expts. demonstrated that this decrease  
in **thiol** groups can be lowered to 64.2.+-.0.8% by substituting  
60 % of the **thiolated** polymer by mannitol. Release studies of  
the fluorescence labeled model drug insulin showed that an almost  
zero-order release kinetic can be provided by the use of **thiolated**  
polycarbophil as carrier matrix. The results represent helpful  
information in order to improve the stability and release properties of  
matrix tablets based on **mucoadhesive polymers**.

ST insulin **thiol** polycarbophil tablet control release;

polycarbophil tablet mucoadhesive peptide delivery

IT Drug delivery systems

(tablets, controlled-release, mucoadhesive peptide-; **thiolated**  
polycarbophil matrix tablets in vitro evaluation)

IT Dissolution

(**thiolated** polycarbophil matrix tablets in vitro evaluation)

IT 25952-53-8, 1-Ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride  
RL: RCT (Reactant); RACT (Reactant or reagent)

(**thiolated** polycarbophil matrix tablets in vitro evaluation)

IT 7048-04-6DP, L-Cysteine hydrochloride monohydrate, conjugates with  
polycarbophil 9003-97-8DP, Polycarbophil, conjugates with cysteine

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological  
study); PREP (Preparation); USES (Uses)

(thiolated polycarbophil matrix tablets in vitro evaluation)  
IT 69-65-8, Mannitol 9004-10-8, Insulin, biological studies  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(thiolated polycarbophil matrix tablets in vitro evaluation)

L5 ANSWER 33 OF 51 USPATFULL

ACCESSION NUMBER: 2000:64898 USPATFULL

TITLE: Enzyme inhibitors

INVENTOR(S): McIver, John McMillan, Cincinnati, OH, United States  
Underiner, Todd Laurence, Cincinnati, OH, United States

Bates, Timothy, Cincinnati, OH, United States

PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6066673		20000523
APPLICATION INFO.:	US 1998-41196		19980312 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Padmanabhan, Sreeni		
LEGAL REPRESENTATIVE:	Echler, Sr., Richard S., McDow-Dunham, Kelly L., Hersko, Bart S.		
NUMBER OF CLAIMS:	22		
EXEMPLARY CLAIM:	1		
LINE COUNT:	2685		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:93131 USPATFULL  
 TITLE: Solid carriers for improved delivery of active ingredients in pharmaceutical compositions  
 INVENTOR(S): Patel, Mahesh V., Salt Lake City, UT, United States  
 Chen, Feng-Jing, Salt Lake City, UT, United States  
 PATENT ASSIGNEE(S): Lipocine, Inc., Salt Lake City, UT, United States  
 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6248363	B1	20010619
APPLICATION INFO.:	US 1999-447690		19991123 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Spear, James M.		
LEGAL REPRESENTATIVE:	Reed, Dianne E. Reed & Associates		
NUMBER OF CLAIMS:	57		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 4 Drawing Page(s)		
LINE COUNT:	3302		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . vaccine; salmetrol xinafoate; sincalide; small pox vaccine; solatol; somatostatin; sparfloxacin; spectinomycin; stavudine; streptokinase; streptozocin; suxamethonium chloride; tacrine hydrochloride; terbutaline sulfate; **thiopeta**; ticarcillin; tiludronate; timolol; tissue type plasminogen activator; TNFR:Fc; TNK-TPA; trandolapril; trimetrexate gluconate; trospectinomycin; trovafloxacin; tubocurarine chloride; tumor necrosis factor; typhoid.

DETD **Mucoadhesive polymers and polymer**  
 -inhibitor conjugates, such as polyacrylate derivatives, chitosan, cellulose, chitosan-EDTA, chitosan-EDTA-antipain, polyacrylic acid-bacitracin, carboxymethyl cellulose-pepstatin, polyacrylic acid-Bwman-Birk inhibitor.

DETD . . . methanesulfonic acid, oxalic acid, para-bromophenylsulfonic acid, propionic acid, p-toluenesulfonic acid, salicylic acid, stearic acid, succinic acid, tannic acid, tartaric acid, **thioglycolic** acid, toluenesulfonic acid and uric acid, and where the base is a pharmaceutically acceptable base, such as an amino acid, . . . methanesulfonic acid, oxalic acid, para-bromophenylsulfonic acid, propionic acid, p-toluenesulfonic acid, salicylic acid, stearic acid, succinic acid, tannic acid, tartaric acid, **thioglycolic** acid, toluenesulfonic acid, and uric acid;

CLM What is claimed is:

. . . vaccine; salmetrol xinafoate; sincalide; small pox vaccine; solatol; somatostatin; sparfloxacin; spectinomycin; stavudine; streptokinase; streptozocin; suxamethonium chloride; tacrine hydrochloride;

terbutaline

sulfate; **thiopeta**; ticarcillin; tiludronate; timolol; tissue type plasminogen activator; TNFR:Fc; TNK-TPA; trandolapril;

trimetrexate

gluconate; trospectinomycin; trovafloxacin; tubocurarine chloride;

tumor

necrosis factor; typhoid. . .

. . . vaccine; salmetrol xinafoate; sincalide; small pox vaccine; solatol; somatostatin; sparfloxacin; spectinomycin; stavudine; streptokinase; streptozocin; suxamethonium chloride; tacrine hydrochloride;

terbutaline



sulfate; thiopeta; ticarcillin; tiludronate; timolol; tissue  
type plasminogen activator; TNFR:Fc; TNK-tPA; trandolapril;  
trimetrexate  
gluconate; trospectinomycin; trovafloxacin; tubocurarine chloride;  
tumor  
necrosis factor; typhoid. . .

L5 ANSWER 27 OF 51 USPATFULL

PATFULL  
 ACCESSION NUMBER: 2001:190748 USPATFULL  
 TITLE: Triglyceride-free compositions and methods for enhanced  
 absorption of hydrophilic therapeutic agents  
 INVENTOR(S): Patel, Mahesh V., Salt Lake City, UT, United States  
 Chen, Feng-Jing, Salt Lake City, UT, United States  
 PATENT ASSIGNEE(S): Lipocine Inc., Salt Lake City, UT, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6309663	B1	20011030
APPLICATION INFO.:	US 1999-375636		19990817 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Page, Thurman K.		
ASSISTANT EXAMINER:	Channavajjala, Lakshmi		
LEGAL REPRESENTATIVE:	Reed, Dianne E. Reed & Associates		
NUMBER OF CLAIMS:	170		
EXEMPLARY CLAIM:	1		
LINE COUNT:	4371		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . vaccine; salmetrol xinafoate; sincalide; small pox vaccine; solatol; somatostatin; sparfloxacin; spectinomycin; stavudine; streptokinase; streptozocin; suxamethonium chloride; tacrine hydrochloride; terbutaline sulfate; **thiopeta**; ticarcillin; tiludronate; timolol; tissue type plasminogen activator; TNFR:Fc; TNK-tPA; trandolapril; trimetrexate gluconate; trospectinomycin; trovafloxacin; tubocurarine chloride; tumor necrosis factor; typhoid.

SUMM **Mucoadhesive polymers and polymer**  
 -inhibitor conjugates, such as polyacrylate derivatives, chitosan, cellulose, chitosan-EDTA, chitosan-EDTA-antipain, polyacrylic acid-bacitracin, carboxymethyl cellulose-pepstatin, polyacrylic acid-Bowman-Birk inhibitor.

SUMM . . . maleic acid, oxalic acid, para-bromophenylsulfonic acid, propionic acid, p-toluenesulfonic acid, salicylic acid, stearic acid, succinic acid, tannic acid, tartaric acid, **thioglycolic** acid, toluenesulfonic acid, uric acid, and the

L5 ANSWER 18 OF 51 USPATFULL

ACCESSION NUMBER: 2002:224440 USPATFULL

TITLE: Polymer grafting by polysaccharide synthases

INVENTOR(S): DeAngelis, Paul L., Edmond, OK, United States

PATENT ASSIGNEE(S): The Board of Regents of the University of Oklahoma,  
Norman, OK, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6444447	B1	20020903
APPLICATION INFO.:	US 1999-437277		19991110 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-283402, filed on 1 Apr 1999		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-107929P	19981111 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Nashed, Nashaat T.	
LEGAL REPRESENTATIVE:	Dunlap, Coddling & Rogers, P.C.	
NUMBER OF CLAIMS:	48	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	11 Drawing Figure(s); 11 Drawing Page(s)	
LINE COUNT:	2329	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . by matrix-assisted laser desorption ionization time-of-flight mass spectrometry. Sugars in water were mixed with an equal volume of 5 mg/ml 6-azo-2-**thiothymine** in 50% acetonitrile/0.1% trifluoroacetic acid, and rapidly air-dried on the target plate. The negative ions produced by pulsed nitrogen laser. . .

DETD . . . development both in academia and in industry. The first generation of bioadhesive drug delivery systems (BBDS) were based on so-called **mucoadhesive polymers**, i.e. natural or

L5 ANSWER 12 OF 51 USPATFULL

ACCESSION NUMBER: 2002:133237 USPATFULL

TITLE: BIOADHESIVE HYDROGELS WITH FUNCTIONALIZED DEGRADABLE  
CROSSLINKS

INVENTOR(S): MARCHANT, NANCY S., MEDINA, OH, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002068087	A1	20020606
	US 6514535	B2	20030204
APPLICATION INFO.:	US 1999-316688	A1	19990521 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	NESTOR W. SHUST, HUDAK & SHUNK CO., L.P.A., 7 WEST BOWERY STREET, SUITE 808, AKRON, OH, 44308-1138		
NUMBER OF CLAIMS:	36		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1161		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM [0009] Yip discloses in U.S. Pat. No. 4,898,824 a crosslinked polyacrylamide-**sulphydryl** polymer for immobilization of biologically active substances. Saffran, et al. disclose in U.S. Pat. No. 4,663,308 high molecular weight polymers. . . .

SUMM . . . body are coated with a mucus membrane. The ability of a material to `stick` to a mucous membrane is termed **mucoadhesion** or bioadhesion. **Polymers** capable of hydrogen bonding are known to be the best at bioadhesion. Crosslinked polyacrylic acid hydrogels such as Carbopol.RTM. (B. . . .

SUMM . . . bioadhesive composition, wherein the crosslink is at least one member selected from the group consisting of disulfides, esters, peptides, and **thiols**.

SUMM . . . in forming reversible crosslinked electrophoresis gels. Alternatively the amino acid cysteine and the disulfide version cystine may be acryloated other **thiol**/disulfide combinations can be used as long as there is a polymerizable functionality attached (e.g., acryl or allyl). Controlled molecular weight. . . .

SUMM . . . crosslink two portions of the polymer network. This form of sulfur is relatively stable but can be reduced to the **sulphydryl** group thus breaking the crosslink. It may also be oxidized to break the crosslink by forming sulfonic acid or sulfate. . . . may be oxidized

to

form disulfide crosslinks. Polymers may be made using either a disulfide based monomer system or a **thiol** based monomer system. For example, in a low molecular weight hydrophilic polymer with **thiol** groups, the **thiol** group is oxidized to give a crosslinked gel. It may be envisioned that drug may be distributed through a low. . . .

SUMM . . . or oxidation of the crosslinks. One major power of the disulfide system is that it undergoes exchange reactions. A free **thiol** may exchange into a disulfide bond and cause rearrangement. This may be used in bioadhesive applications where binding to mucin disulfide bonds or externally available **thiols** and disulfides of proteins may be exchanged.

SUMM [0072] Any **thiol** containing reagents such as dithiothreitol, dithioerythritol, 2 mercaptoethanol and mercaptoethylamine, and cysteine

can serve as reducing agents for disulfides. Complete conversion of disulfide to **thiol** can be achieved with excess reducing

agents. With Dithiothreitol, low level is enough to drive the reaction to completion because. . . a carbomer like matrix. The apparent pH of the mixture will also influence the ability to exchange the disulfide to **sulphydryl**. The colon is known to be a reducing environment and there may be a different rate of reduction/oxidation depending upon. .

SUMM [0073] In order to re-establish a disulfide crosslink, the **sulphydryl** bond is oxidized to the disulfide. Any oxidizing agent such as air, iodide or hydrogen peroxide, is capable of oxidizing.

SUMM [0074] One could also envision making a system with a **sulphydryl** as a method to bind an active drug by forming a disulfide that is released upon reduction, or forming a. . .

SUMM [0079] 3. Disulfide: Cleaved by reducing agents and enzymatic r